

**REMARKS**

In the Office Action of July 12, 2006,<sup>1</sup> claims 1-3, 5-7, and 25-28 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by AutoCAD 2000 (“Inside AutoCAD ® 2000 Limited Edition,” by Burchard et al.) (“*AutoCAD 2000*”); claims 8-10 and 12-14 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *AutoCAD 2000*; claims 15-20, 22 and 23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *AutoCAD 2000* in view of Maeda et al. (U.S. Patent 5,966,310) (“*Maeda*”); and claims 4, 11, 21 and 24 were objected to as being dependent upon a rejected base claim.

Applicants appreciate the Examiner’s indication of allowable subject matter in claims 4, 11, 21 and 24. Applicants further appreciate the courtesy extended by the Examiner during the telephonic interview, granted on September 26, 2006, during which the distinction between feature-based, parametric modeling tools such as Pro/E and two-dimensional, non-feature-based modeling tools such as AutoCAD was discussed.

**Section 102(b) rejection of claims 1-3, 5-7 and 25-28**

Applicants traverse the § 102(b) rejection of claims 1-3, 5-7 and 25-28. *AutoCAD 2000* fails to disclose each and every limitation of the claims and therefore cannot anticipate the claims. In order to properly anticipate Applicants’ claimed invention under 35 U.S.C. § 102, a single prior art reference must disclose each and every element of the claim at issue, either expressly or under principles of inherency. Further, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” See M.P.E.P. § 2131. Also, “[t]he elements must be arranged as required by the claim.” *Id.*

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether or not any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

With regard to independent claim 1, *AutoCAD 2000* does not teach at least “obtaining a schematic generated from a feature-based parametric modeling tool,” as recited in claim 1 (emphasis added). *AutoCAD 2000* merely describes the operation and uses of the AutoCAD ® 2000 software. AutoCAD ® 2000 software (“AutoCAD”) does not fall within the scope of “feature-based parametric” software given the industry standard definition conventionally assigned to this terminology.

Specifically, the rejection states that an “AutoCAD drawing file [is] functionally equivalent to a ‘feature-based’ drawing file.” The rejection further states that AutoCAD is a feature-based parametric modeling tool as AutoCAD drawing files are “made up of lines and points” which are “created to represent objects (i.e. wiring or building schematics, machined parts etc), such objects comprising specific features such as line width, line color etc.” (Office Action, p.12). However, this interpretation of a “feature-based parametric” by the Examiner disregards the meaning that one of skill in the art would assign to the phrase.

For example, in the enclosed article, *Computer-aided design*, which was discussed with the Examiner in the telephone interview, it is stated that, “3D parametric solids (programs incorporating this technology include IronCAD, Alibre, SolidWorks and SolidEdge) require the operator to use what is referred to as ‘design intent.’” (*Computer-aided design* at 6). Design intent may be built-in to a feature-based model by assigning parameters (hence the limitation “parametric”) to various features of a drawing. That is, parameters may be assigned to the bore of a hole or the length of a protruding feature. They may also be used to define the location of features with respect to each other relative to one or more coordinate systems. These parameters may then be related to each other through assigned, user-defined functions to allow subsequent “intelligent” modification of the model. This type of advanced drafting is far superior to and

distinct from two-dimensional or even three-dimensional wire frame modeling tools, such as AutoCAD, that require manual manipulation of individual lines and points in order to construct a model. In fact, such non-feature-based, parametric modeling tools are now relatively primitive and so have become nearly obsolete. This is evidenced by the fact that nearly all modern, manufactured goods (e.g., automobiles, airplanes, industrial equipment, consumer goods etc.) are modeled using feature-based parametric software such as, for example, Pro/ENGINEER, CATIA, and SolidWorks. As noted in *Computer-aided design*, “Autodesk was founded 1982 by John Walker, which led to the 2D system AutoCAD. The next milestone was the release of Pro/Engineer in 1988, which heralded greater usage of feature based modeling methods.” (*Id.* at 4.) Therefore, in view of the above, it would be unreasonable and contrary to industry convention to interpret the element “feature-based parametric modeling tool” to include AutoCAD 2000.

Thus, for at least this reason, *AutoCAD 2000* cannot anticipate claim 1. Claims 2-3, 5-7, and 25-28 depend from claim 1 and are patentable over *AutoCAD 2000* for at least the same reasons as claim 1, discussed above. Reconsideration is requested.

**Section 103(a) rejection of claims 8-10 and 12-14**

Independent claim 8 recites “obtaining a schematic generated from a feature-based parametric modeling tool.” As discussed above with regard to claim 1, *AutoCAD 2000* does not teach or disclose this limitation. For at least this reason, the rejection should be withdrawn. Claims 9-10 and 12-14 depend upon claim 8. The § 103(a) rejection of claims 9-10 and 12-14 should be withdrawn for at least this reason. Applicants therefore request reconsideration of the § 103(a) rejection and the timely allowance of claims 8-10 and 12-14.

**Section 103(a) rejection of claims 15-20, 22 and 23**

Applicants traverse the rejection of claims 15-20, 22 and 23. A case for *prima facie* obviousness has not been established. As M.P.E.P. § 2142 states, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” To establish *prima facie* obviousness under 35 U.S.C. § 103(a), three requirements must be met. First, the applied references, taken alone or in combination, must teach or suggest each and every element recited in the claims. See M.P.E.P. § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the reference(s) or in the knowledge generally available to one of ordinary skill in the art, to combine or modify the reference(s) in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” M.P.E.P. § 2143 (8th ed. 2001).

Claim 15 recites, in part, “a feature-based parametric modeling module.” As discussed above with respect to claim 1, *AutoCAD 2000* fails to disclose or suggest a feature-based parametric modeling tool. *Maeda* fails to rectify the deficiency of *AutoCAD 2000*. Therefore, neither *AutoCAD 2000* nor *Maeda*, either alone or in combination, disclose or suggest the invention as claimed. For at least this reason the rejection of claim 15 should be withdrawn. Claims 16-20 depend from claim 15 and are distinguishable over the prior art for at least this reason. Reconsideration is requested.

Independent claim 22 recites, *inter alia*, a “colorization module” configured to “obtain a schematic generated from a feature-based parametric modeling tool.” As discussed with respect to claim 1, *AutoCAD 2000* fails to teach or suggest the above-noted feature of claim 22. *Maeda* does not cure *AutoCAD 2000*’s deficiencies. For at least this reason, neither *AutoCAD 2000* nor *Maeda*, either alone or in combination, disclose or suggest the claimed invention.

Reconsideration is requested. Claim 23 depends from claim 22 and is also distinguishable over *AutoCAD 2000* and *Maeda* for the same reason as claim 22. Reconsideration is requested.

**Conclusion**

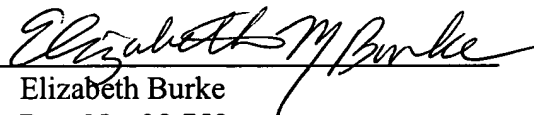
Applicants request the Examiner's reconsideration of the application in view of the foregoing, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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**Enclosures:** "Computer-Aided Design." Wikipedia. 19 Sept. 2006. 19 Sept. 2006  
<<http://en.wikipedia.org/wiki/CAD>>.